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ABSTRACT

The objective of this study was to explore the feasibility of analyzing educational and cultural factors associated with the vocational success of graduates of a large boarding school for Navajo Indians (i.e., the 1964 graduates of Intermountain School in Utah). In order to locate these graduates, letters were sent to the parents or guardian. When this brought no response, an interviewer was sent to the reservation to speak to parents, other family members, or the local trader to obtain current addresses for the graduates. An interview schedule was developed, tested on Navajos living on or near the reservation, and revised. Information obtained from Intermountain School included the student's total amount of schooling, age when he started school, age when he graduated, information concerning courses he had taken, grade point averages, test data for achievement and aptitude tests, evaluation which had been made by counselors and teachers on various aspects of the student's life and behavior, and information on the summer placement program. Included in the sample were 80 graduates, each of whom was personally interviewed. The data, analyzed by stepwise regression, indicated that the best variable for predicting total productive activity was teacher evaluation of the student's respect for property; the next best prediction variable was knowing the traditional Navajo stories. However, "these results are only suggestive because of the smallness of the sample, but it appears that among the variables used in the study are those which can be meaningfully combined to give an explanation of and be useful for predicting a reasonable percentage of relative vocational success among Navajo males." (LS)

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SOCIAL, CULTURAL AND EDUCATIONAL FACTORS ASSOCIATED WITH RELATIVE VOCATIONAL SUCCESS OF NAVAJO HIGH SCHOOL GRADUATES

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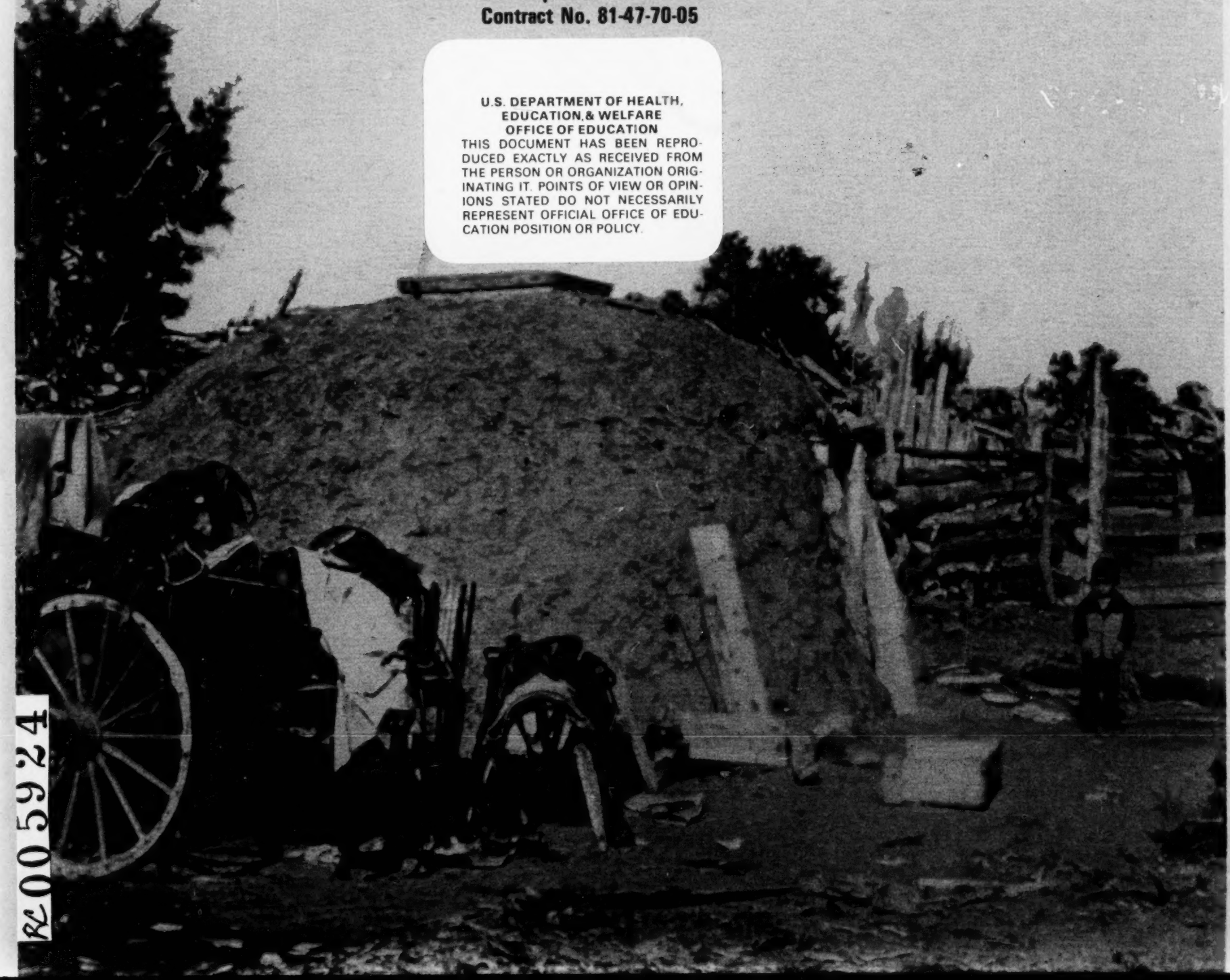

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THE PROBLEM AND SETTING

The Problem

In any society there are certain marginal members, often belonging to a minority group, who because of their marginality are not fully productive in that society. These groups and their low productivity have important implications in terms of manpower utilization. Among these groups in the United States is the Navajo Indian. He has been given relatively little attention in terms of productivity and vocational adjustment.

The individual Navajo, caught in a complicated cultural situation, finds it exceedingly difficult and often frustrating. In general, three choices confront the Navajo who has received education through at least the high school level. One choice is to return to the reservation, with its degrees or gradient levels of traditionalism and modernism. Another choice involves a bi-cultural adjustment and occurs when the young Navajos decide to live in communities or areas adjacent to the reservation. The third alternative is to accept employment and live far from the reservation and his native culture.

The dual traditional-modern cultural background of the Navajo graduate, his language and communication problems and the possible prejudice and intercultural barriers he is likely to encounter cause the young Navajo to face adult life with handicaps and problems quite different from those of whites. These are problems which are not well understood. Too many people tend to assume that exposure to, and more or less successful completion of the standard educational curriculum, automatically produces a graduate who can find an acceptable niche in American society. Unfortunately, this process is not inevitable, even for many "average Americans." It is even less true for Indians and other minorities.

The Navajo has an alternative to regular gainful employment. He can always return to the shelter and protection of the extended family on the reservation and revert to traditional Navajo life. Without satisfaction and adjustment in his employment and related living situation such reverting can be expected.

The Objective

The objective of this study is to explore the feasibility of analyzing educational and cultural factors associated with the vocational success of recent graduates of a large boarding school for Navajo Indians, the 1964 graduates of Intermountain School specifically. It was considered desirable to study a group long enough out of school for their career patterns to have been evidenced, recent enough to be locatable and to have been subject to a schooling environment still current. A comparison of the 1964 curriculum with that of the present is given on pages 3 and 4.

A GENERAL DESCRIPTION OF SCHOOL AND STUDENTS

Intermountain School is the largest coeducational boarding school operated by the United States Bureau of Indian Affairs with an authorized enrollment of 2150 students. The school is located in Northern Utah at the small city of Brigham City, Utah, which has a population of approximately 13,000.

The facilities now occupied by Intermountain School were originally built by the U. S. Army during World War II and operated as Bushnell General Hospital. The hospital was declared a surplus and in 1949 it was turned over to the Bureau of Indian Affairs to be used as a boarding school for Navajo boys and girls. At that time there were about 18,000 Navajos of school age who were not in school. Many of them were 12 years of age or older.

Most students enrolled at Intermountain come from remote areas of the reservation with homes located 383 to 647 miles away. All students attending Intermountain are enrolled at their local agencies by their parents through the Navajo Area Educational officials, according to the following criteria: 1) Pupils ages 12 and above who cannot attend a public school, a bureau school on a day basis or a border town dormitory 2) Pupils recommended for social or welfare reasons and approved by the agency school superindendent. Thus the students attending Intermountain are not a cross section of Navajos but rather those from more remote regions and those from "problem" families.

Before attending school, they have spent from 6 to 12 years in homes which have taught them Navajo traditions to varying degrees. A significant

number have experienced a complete breakdown in parental standards and guidance, while others are deeply inculcated with the Navajo values. Many have experienced extreme poverty. The students have from 0 to 12 years of sporadic attendance in schools - public, mission, or bureau.

The students are limited in their general experiences related to the broader culture. They have had varying contact through travel to towns near their homes or schools, movies, television and radio. These contacts, however, probably produce a distorted view of the general American values and culture since they have had little social involvement with the broader society.

The parents have had little or no schooling. The language is Navajo, a virtually unwritten language. The students have had very little contact with books, except at school. In many cases the students have gone to school with the encouragement of their parents, while others have essentially run away in order to get to school.

Curriculum and Students - 1964

The curriculum in 1964 was vocationally oriented. It consisted of two separate programs, one leading to a high school diploma and the other, due to the fact that so many students were coming to Intermountain with inadequate backgrounds, consisted of a Special Navajo Program in which a certificate rather than the high school diploma was awarded.

The following vocational choices were available to the students:

Home Service
Upholstery
Commercial Film Librarian
Electronic Assembly
Drafting
Electronics
Welding
Body and Fender
Auto Mechanics
Painting
Machine Shop
Cabinet and Mill

Summer placement on jobs in the area was an important part of the training and direct placement after graduation was also attempted.

Curriculum and Students - 1969

There have been some changes in curriculum and students since 1964. There seems to be more acceptance of the importance of education by the parents of students and the students coming to Intermountain in 1969 are somewhat less educationally deprived. Students are prepared to go in one of three directions after graduation. 1) Direct employment, 2) Post-graduate technical training, 3) College.

The vocational programs for boys consist of 1,080 hours, covering a two-year period of time, and are currently as follows:

Trade and Industry:

Auto Body and Fender Repair
Cabinet and Mill
Painting
Welding
Upholstery
Machine Shop
Vocational Electricity

Here approximately 50 per cent of the time is spent in the classroom and 50 per cent in the laboratory.

Business Education

General Business
Offset Printing

Prior to the student's enrollment in vocational education, he receives two years of Practical Arts training in General Metals, General Woodworking, General Electricity, and General Drawing. In addition to the Industrial Arts training, all students are encouraged to take Driver Education, Special Mathematics, and Economics.

Programs for girls include:

Distributive Education (including typing, bookkeeping, office machines, marketing, salesmanship, office experience)
Day Nursery Care
Pre-Nursing
Quantity Foods
Teacher Aides (includes audio-visual, library, assistance in instructional materials center, and related fields)

GENERAL DESCRIPTION OF THE NAVAJO RESERVATION AND ITS PEOPLE

Geography and Population Distribution

The Navajo, a proud and independent people have a culture which still

functions vigorously. It is the largest Indian tribe in the country and is one of the fastest growing of any group in the United States with an estimated annual increase of 2 1/2 per cent. At the close of 1969 the Navajo area population was 126,265.[1] The Navajo area is designated by the B. I. A. as that area encompassing the Navajo reservation and those regions outside of, but in close proximity to it where Navajos are in the majority and living the traditional Navajo way of life. The above figure does not include the total Navajo population. Figures for those Navajos who are not residing in the Navajo area have not been enumerated. Therefore, any attempt to present information concerning those tribal members who are in neighboring cities or neighboring or distant states would only at best be an estimate.

The present Navajo Reservation of more than 15,000,000 acres (larger than the state of West Virginia) in Northwestern New Mexico, Northeastern Arizona, and Southeastern Utah has a population density of about 3 persons per square mile. There are no large city centers within the boundaries of the reservation and most of the population is widely scattered in areas without electricity or other utilities. In the areas of Shiprock, New Mexico; Tuba City, Kayenta, Window Rock, and Fort Defiance, Arizona are found the only sizable concentrations of people. These areas are beginning to grow because they are and have been administrative areas. In such areas are found hospitals and a variety of businesses and other services.

In elevation, the country varies from 4500 feet to nearly 10,000 feet in the mountains. Rainfall varies from about 5 inches annually in lower altitudes to more than 20 inches in the mountains. Most of the rainfall is torrential summer rain which runs off into great gullies rather than soaking into the parched soil.[2] More than a million acres of the Navajo Reservation are too barren and too inaccessible to be suitable even for grazing. It has been estimated that the reservation can support no more than 35,000 people at a reasonably decent subsistence level without adopting

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[1]Melvin Wise, Director of the Bureau of Vital Statistics, Navajo Tribe, Window Rock, Arizona: Personal Interview, January 1970.

[2]Elman R. Service, Profiles in Ethnology, Harper and Row, New York, 1963, p. 162.

new means of making a living, which would necessitate the resettlement of thousands of Navajo people to areas off the reservation.[3] The intense devotion of the Navajos to their scenic homeland, however, makes them extremely reluctant to leave the reservation on a permanent basis.

Industry

Industry on the reservation is a relatively recent addition and has brought about employment opportunities to the Navajo people.

In the past, the caring and herding of sheep and cattle was the only work one would have. This type of work was tied very closely with tradition and family relationships. The individual who was herding the sheep or cattle would receive no monetary compensation for his efforts. It was part of his role as a family member.

With the organization of Tribal Government and Tribal Services, the Navajo found job opportunities working for, and with, his own people. One could find employment on road crews, with law enforcement, and a variety of other tribal positions if education and language skills were sufficient. Recently the Navajo Tribal Utility Authority was developed which has been another source of employment.

Many Navajos are employed by the Bureau of Indian Affairs in numerous capacities, working with land, forests, schools, administrating and in other positions.

The Bureau of Reclamation is another government agency that employs a number of Navajos.

For the white man to conduct good business on the reservation he needs Navajo employees with bilingual capacity. Such Navajo individuals are working in trading posts, cafes, service stations and a variety of business establishments on their reservation.

The tribe has its own industry as well. Navajo Pine Products is a large lumber enterprise. It began with the first sawmill in 1888 and at present the new modern sawmill in Navajo, New Mexico will produce 50,000,000 board feet of lumber per year, and give premanent employment to approximately 450 Navajos.

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[3]Robert F. Spencer, et. al., The Native American, Harper and Row, New York, 1965, p. 319.

The newest industry on the reservation is that of Fairchild Semi Conductor at Shiprock, New Mexico. The establishment of this industry has opened many opportunities for the Navajos living within the boundaries of the reservation. Fairchild is hiring both men and women (although mostly women) and the present labor force is about 1400. Most of these are operative type jobs, but a few are of a supervisory nature.

Important Cultural Factors

The manpower and economic situation or the Navajo can only be understood if put into a cultural perspective. This is particularly true where aspects of the traditional culture have behavioral correlates which may prove dysfunctional in terms of adjusting to the economic way of life of the broader society.

Traditional Navajo society is matrilineal, and the women have been the owners of the property. Males, when they marry, move in with the wife and her family and work for the newly acquired family. Navajo people have a strong value toward cooperation, especially with relatives. They will travel great distances to help each other. They will not compete with family or tribal members because to rise above another is not good. Display of wealth is not a matter which rests with the individual, but is rather a function of the family as a whole. The way a Navajo person can gain status is to look after his relatives.[4]

A white man may start out to make a fortune and continue to pile up riches even after he is well off. The Navajo traditionally will stop when he is comfortably well off, or even sooner, partly because he fears being called a "witch" for becoming too successful. Work is not, as it is in white society, a good thing in and of itself. The Navajo believes in working only as much as he needs to.[5]

Clyde Kluckhohn, who has written much on the Navajo, has given five formulas which the Navajo consider in their view of life and value for

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[4]Clyde Kluckhohn and Dorothea Leighton, The Navajo, Garden City, New York, Double Day and Company, Inc., 1962, p. 300.

[5]Ibid., p. 302.

their safety. The formulas are as follows: The first deals with maintaining order at all times and in all things. Everything to the Navajo is patterned, and to be in disorder or disharmony may cause illness. The second formula is that the Navajo should always be wary of non-relatives. They consider the "out-group" as being dangerous, so it is to be avoided if harmony is to be maintained. The third formula is to avoid excesses. Such things as riches, sex, gambling, and even knowledge are not wrong in and of themselves, but if indulged in too much, they will bring trouble. There is, for example, a folk saying which says that if a child gets too smart, he will die young. The fourth states that when a Navajo is in a new and dangerous situation, he should do nothing. If a Navajo finds himself in a secular situation where customs do not tell him how to behave, he is usually ill at ease and becomes very anxious. White society tells him to do something or act when faced with a problem, but Navajo society tells him to do nothing, and he may escape the evil. The fifth formula deals with escape. This may be viewed as an alternate to formula four. If doing nothing is not enough safety, then safety lies in flight. A woman who was missing traditional food in the hospital left the hospital because it was much easier for her to go home and get what she wanted than to ask for it. Had she asked, it would have been given to her. Other escapes include the use of alcohol.[6]

As can be seen, the Navajo do have outlined actions for various situations. However, their outline seems to be functional only if we examine it in their own cultural context. If Navajo perform such actions in answer to situations arising through dealings with white men and the white society, they are defined as being lazy, incoherent, and otherwise abnormal.

PROCEDURES

There were three basic steps associated with obtaining the data. 1) Current addresses of graduates had to be obtained. 2) The interview

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[6] Ibid., pp. 304-307.

schedule had to be developed and the interviews completed. 3) Relevant data from school records had to be obtained.

In addition the data were coded and punched on cards for computer processing. Care was taken to assure anonimity of the graduates.

Obtaining Addresses of Graduates

Intermountain School was most cooperative in all aspects of the study. The roster of 1964 graduates was provided which included the students' names, the students' parents or guardians, the address, the students' birthdates and census numbers (the census number was found to be very helpful in some cases since many names are very similar and this in one of the ways of identifying particular individuals.)

A letter was sent to each parent or guardian in an attempt to get information concerning the whereabouts of the student and hopefully a current address (a copy of the letter is found in the appendix.)

The second step in attempting to obtain addresses of the graduates came by sending an interviewer to the reservation to speak to the parents or guardians where possible or other family members, or sometimes the Trader to obtain information as to the whereabouts or the address of the graduate. The Trader (that is the owner and manager of the trading post in the area) is a vital link in the lives of Navajos. It is his business to know what is going on. We were able to obtain addresses in many cases from the Trader, in some cases we used the telephone to obtain information from him.

Graduate Interviews

The developing of an interview schedule with which meaningful information could be obtained required several stages of revisions. Each stage was accompanied by several interviews with Navajos who are working in the metropolitan areas of Utah. After the interview schedule seemed to be fairly adequate, a trip was taken to the reservation to test it on a number of Navajos living on or near the reservation, prior to final revisions.

Students were searched out and interviewed on the reservation, areas adjacent to the reservation, (such as Gallup, New Mexico; Flagstaff,

Arizona; and Cortez, Colorado), the urban areas of Utah, and in the metropolitan areas of Los Angeles, San Francisco, and Chicago.

School Data

The files of the graduates were made available by Intermountain School. Information obtained included the total amount of schooling the student had had, age when he started school, age when he graduated, and all pertinent information concerning courses he had taken and grade point averages, test data for various achievement and aptitude tests, evaluations which had been made by counselors and teachers on various aspects of his life and behavior, and information on the summer placement program.

These data, along with the data from the interview schedule were coded and punched on cards, with care taken to assure the anonymity of the individuals.

FINDINGS

Obtaining Addresses of Graduates

The use of letters to parents or guardians was only partially successful. Among the problems of attempting to get information in this way are those centered around the fact that a rather high proportion of the parents or guardians do not read, write, or speak English. The letters were sent to the trading post. When the individual to whom the letter was addressed came to the trading post he would be given the letter, (if the Trader remembered.) In many cases it was necessary to have someone read the letter, translate it, and write in the information. Of the total 171 letters sent out, 43 were returned and of these 36 had relatively useful information on them. Some letters came back after a couple of weeks, while others dribbled in over a period of months, some of them after the interview with the graduate had been completed. In many cases, the letter was saved until the graduate came home at which time he or she filled in the information and then returned it to us.

One important factor which had not been foreseen was the great mobility of the graduates. At first it appeared that much of the information received from letters, directly from family members, and from the Trader was erroneous. While in some cases it was erroneous, in many cases it was adequate information for the time, but between the time of obtaining the information and the attempted interview, the graduate had moved - in some instances more than once.

The Interview Schedule

Among the problems encountered in developing the interview schedule were: 1) A lack of familiarly on the part of the graduates with many of the words which seemed relatively common to us. For instance, many of them seemed to have difficulity withsuffixes and prefixes. Many of them had trouble with "job", but they understood the word "work." They did not understand who their employer was, but they knew who they worked for. 2) Many of them had not thought about the possibility of changing things to meet their needs. For instance, when we attempted an unstructured question and asked them what would be some of the most important things

they would do if they could set up a school for Navajos, the idea was foreign to them. They could not or would not respond. 3) In attempting to use the semantic differential similar to one which had been used in other studies with Indians, we found that most of them were unable to read the words readily so that we could not use it as a "paper and pencil" test as it is classically administered. Further many of the polar words that had been used previously seemed to be meaningless to the individuals. Thus we modified the semantic differential and utilized it in terms of a structured interview in which we gave them the extremes, such as good or bad. After answering either good or bad, the interviewer would say "is it just good or very good?" Thus, by utilizing two choices toward either pole, and a neutral category in instances where they could not or would not make a choice, there were five alternatives rather than the seven alternatives which are used in the classical semantic differential scale.

Although the final result which was used for the interview could have been further tested and improved, much of the material obtained in the interviews was meaningful, and it indicated that for this type of a study it is possible to get adequate information from a group such as this. (A copy of the interview schedule is attached.)

Locating and Interviewing Graduates

There were factors which facilitated as well as hindered the locating and interviewing of the graduates. Among the factors which aided in locating the graduates are the Navajo close-knit family ties and friendship patterns. Even in urban areas, when one Navajo was located, he was able directly or indirectly to give leads to the location of other graduates, particularly of persons in the same graduating class. For instance, "I don't know where he is right now, but his sister lives in Tuba City. She can give you his address."

Among the problems involved in locating the graduates was the mobility mentioned above. One case history which was somewhat extreme, emphasizes this mobility. A student's address was given as a certain area on the reservation. It was some weeks later that an interviewer was in the area to locate this graduate. He went to the area where the graduate was supposed to be, and was told that he had gone to the Los Angeles area for

training under the Employment Assistance Program. Some weeks later the interviewer in Los Angeles located where he had been and was told that a few nights before, he had been "rolled" and rather badly beaten on the street, so he had gone back to the reservation. A few weeks later, the interviewer tried to locate him in his home area on the reservation, and was told that he had left that morning to go to Shiprock, New Mexico, where he would visit his sister and then would leave either that day or the next day for a ranch job in Idaho. The interviewer located the sister and brother-in-law about four hours after he had left for Idaho.

In a number of cases when attempting to locate graduates in urban areas, the interviewer was told, "Well, he used to live here, but I don't know where he is now." In some cases they had moved somewhere within the area, while in others they had gone back to the reservation.

Interviewing on the reservation offered some of the same problems in terms of mobility. The traditional Navajo is still semi-nomadic. During the summer, Navajos take their sheep and other stock to graze at high altitudes. The summer homes are not permanent structures. They can be and frequently are moved from week to week, or maybe from day to day if need be. Thus, if a graduate is living with his family during the summer, it is not an easy matter to locate him.

Interview contacts are difficult even for those families living in their regular winter quarters. This is due to the wide expanse of the reservation along with the isolation of living quarters and very poor roads. It was not uncommon to drive 20 miles over poor roads only to find that the individual the interviewer was seeking had left for the day.

Although there were problems associated with locating and interviewing the Navajo graduates - some of them unique - they were far from insurmountable. It should be possible with a somewhat reasonable time and effort to locate and obtain meaningful interviews with more than ninety per cent of such a sample.

PRELIMINARY ANALYSIS OF DATA

Description of the Sample

There were a total of 171 students who graduated from Intermountain in 1964. Three were found to be deceased, leaving a total of 168. Of this number, 80 or slightly fewer than half of them were personally interviewed. However, 11 were in the armed forces, and thus not available for interview, which meant that slightly over half of those available were interviewed. In the total graduating class, there were 95 males; 37 or 39 per cent of these were interviewed. Of the 73 females in the graduating class, 43 or 59 per cent were interviewed, Table 1. Thus a greater percentage of female than male graduates in the sample were interviewed.

TABLE 1: Sex of graduates - comparing those interviewed with those not interviewed

	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Interviewed	37	39	43	59	80	48
Not Interviewed	58	61	30	41	88	52
Total	95	100	73	100	168	100

The ages when the graduates started school were quite varied, with the greatest percent of both males and females beginning between eight and eleven years of age. The differences in age between those interviewed and not interviewed were not great, Table 2.

The distribution of the number of years of schooling of the graduates is found in Table 3. (The accuracy of the records is open to question since the source of the recorded "years" of schooling are only partial years.) They range from a relatively small percentage who had had five years of schooling or less to a small percentage who had had thirteen or more with most of them having had eight to twelve years. The differences between those interviewed and not interviewed were not

great, the greatest differences being in the females with an over-sampling of those with fewer years of schooling.

TABLE 2: Age when graduate started school - comparing those interviewed with those not interviewed

	6-7	8-9	10-11	12-13	14+	N	No Info.	Total
	Percent					Number		
Males								
Interviewed	16	43	30	5	5	37	0	37
Not Interviewed	15	35	38	10	2	52	6	58
Total	16	38	35	8	3	89	6	95
Females								
Interviewed	10	32	22	20	17	41	2	43
Not Interviewed	21	31	28	17	3	29	1	30
Total	14	31	24	19	11	70	3	73
Total								
Interviewed	13	37	26	13	12	78	2	80
Not Interviewed	17	33	35	12	2	81	7	88
Total	15	35	30	13	7	159	9	168

TABLE 3: Number of years of schooling of graduates - comparing those interviewed with those not interviewed

	1-5	6-7	8-9	10-12	13+	N	No Info.	Total
	- - - - Percent - - - - -					- - Number - -		
Males								
Interviewed	5	5	22	57	11	37	0	37
Not Interviewed	2	5	29	56	7	55	3	58
Total	3	5	26	57	9	92	3	95
Females								
Interviewed	15	15	24	37	10	41	2	43
Not Interviewed	0	17	14	55	14	29	1	30
Total	9	16	20	44	11	70	3	73
Total								
Interviewed	10	10	23	46	10	78	2	80
Not Interviewed	1	10	24	56	10	84	4	88
Total	6	10	23	51	10	162	6	168

The age at graduation ranged from a few who were eighteen years or or less to a few who were above twenty-one. For the most part the range was between eighteen and twenty-one. No consistent differences were noted between those interviewed and those not interviewed, Table 4. (The accuracy of the records here is also open to question since there are often errors in recording of births.)

As has been mentioned, the students could have gone through one of two programs at Intermountain in 1964---one leading to the high school diploma and the other leading to a certificate from a special Navajo program. Thirty-eight percent of the males received a diploma and 62 percent received a certificate; this was compared with 30 and 70 percent respectively for the female graduates, Table 5. A greater percentage of males who were interviewed as compared with those not interviewed had received a diploma. The difference for the females was in the same direction although not as pronounced.

TABLE 4: Age at graduation of graduates - comparing those interviewed with those not interviewed

	18 or less	19	20	21+	N	No Info.	Total
	- - - - Percent - - - -				- - - Number - - -		
Males							
Interviewed	8	43	16	32	37	0	37
Not Interviewed	14	26	40	21	58	0	58
Total	12	33	31	25	95	0	95
Females							
Interviewed	14	40	23	23	43	0	43
Not Interviewed	10	38	31	21	29	1	30
Total	13	39	26	22	72	1	73
Total							
Interviewed	11	41	20	28	80	0	80
Not Interviewed	13	30	37	21	87	1	88
Total	12	35	29	24	167	1	168

TABLE 5: High school diploma or special Navajo program certificate issued - comparing those interviewed with those not interviewed

	Diploma	Certificate	Total
	- - Percent - -		- Number -
Males			
Interviewed	54	46	37
Not Interviewed	28	72	58
Total	38	62	95
Females			
Interviewed	35	65	43
Not Interviewed	23	77	30
Total	30	70	73
Total			
Interviewed	44	56	80
Not Interviewed	26	74	88
Total	35	65	168

Differences in grade point averages between those interviewed and those who were not interviewed were neither great nor consistent, Table 6.

TABLE 6: Total grade point average of graduates - comparing those interviewed with those not interviewed

	Less Than 2.0	2.0-2.5	2.6-3.0	3.1+	Total
	- - - - - Percent - - - - -				- Number -
Males					
Interviewed	3	27	59	11	37
Not Interviewed	10	24	50	16	58
Total	7	25	54	14	95
Females					
Interviewed	12	40	37	12	43
Not Interviewed	7	40	43	10	30
Total	10	40	40	11	73
Total					
Interviewed	8	34	48	11	80
Not Interviewed	9	30	48	14	88
Total	8	32	48	13	168

When those interviewed were compared with those not interviewed for the composite score on the Iowa Tests of Educational Development, again there were some differences but nothing was very striking or consistent, Table 7.

The approximate home locations of those who were interviewed were plotted. As can be observed, Figure 1, there were some differences in proportion of students interviewed from a given area. However, all areas were represented by these interviewed.

The residences of the graduates at the time they were interviewed were classified into four categories. Those "On Reservation" are those who were living within the legal boundaries of the reservation. Those classified "Border Reservation" included those very close to the reservation and others up to about forty miles of the reservation. Many of those were commuting to the reservation for work. "Near the Reservation"

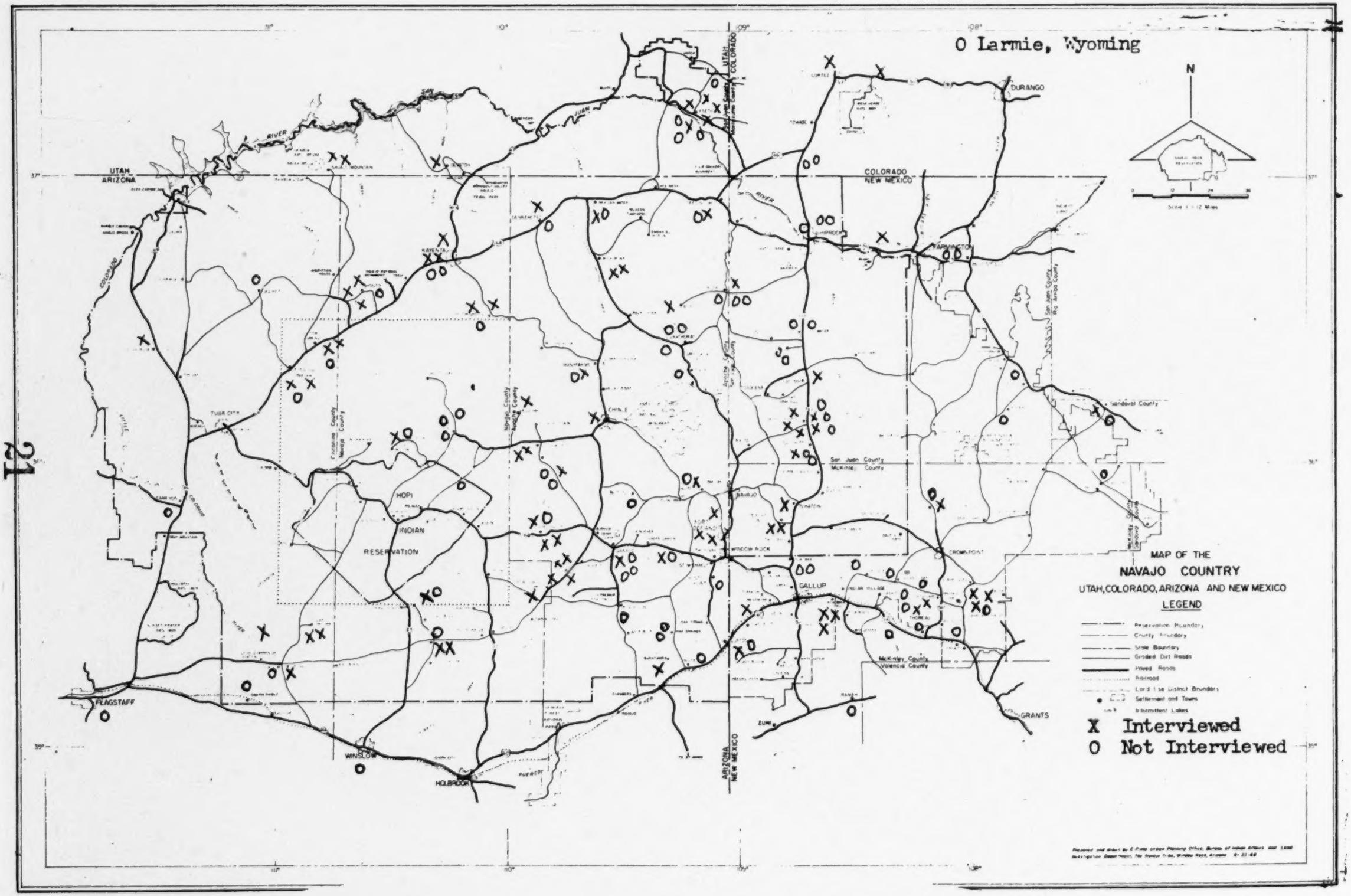

Figure 1. Map of Navajo Reservation with distribution of home location of graduates interviewed and not interviewed

TABLE 7: Composite percentiles of Iowa Test scores - comparing those interviewed with those not interviewed

	Less Than 5	5-9	10-19	20-34	35+	N	No Info.	Total
	- - - - Percent - - - - -					- - Number - - -		
Males								
Interviewed	28	22	25	14	11	36	1	37
Not Interviewed	40	24	10	10	16	58	0	58
Total	35	23	16	12	14	94	1	95
Females								
Interviewed	57	19	12	12	0	42	1	43
Not Interviewed	55	31	14	0	0	29	1	30
Total	56	24	13	7	0	71	2	73
Total								
Interviewed	44	21	18	13	5	78	2	80
Not Interviewed	45	26	11	7	10	87	1	88
Total	44	24	15	10	8	165	3	168

was a classification which included those beyond forty miles but residing within states bordering the reservation and up to about 350 miles, or a little more from it. It was found that many in this group were able to, and were, traveling to the reservation every few weeks for a visit. Those "Distant from the Reservation" included those graduates residing in the areas beyond the "Near Reservation" designation.

An approximation of location of residence was made for those not interviewed on the basis of the best information we were able to obtain both at the time when we were locating the addresses and when we attempted the interviews. It should be kept in mind that this is just an approximation. The distributions are presented in Table 8. To the extent to which those not interviewed is accurate, the data from the table reveal that among the interviewed there is something of an under-sampling of those off the reservation.

It should be further kept in mind that with the great mobility of these graduates, the shifting to and from the reservation, these classifications, even for the interviewed, are tenative at best.

TABLE 8: Residence of graduates at time of interviews

	On reservation	*Border reservation	**Near reservation	Distant from reservation	Service	No information	Total
	- - - - - - - - Percent - - - - - - - - -						Number
Interviewed							
Males	54	27	5	14	0	0	37
Females	79	5	12	5	0	0	43
Total	68	15	9	9	0	0	80
Not Interviewed							
Males	22	12	12	24	19	10	58
Females	43	0	13	33	0	10	30
Total	30	8	12	27	12	10	88
Total							
Males	35	18	9	20	12	6	95
Females	64	3	12	16	0	4	73
Total	48	11	11	18	7	5	168

*Within commuting distance from the reservation - up to about 40 miles
**States bordering the reservation - up to about 350 miles

Employment Information on Graduates Interviewed

Seventy-six percent of the male graduates and sixty-one percent of the females were working at the time of the interview, Table 9; and nineteen percent of both males and females stated they were looking for work.

The job histories were accumulated for each of the graduates to determine the amount of time spent in active employment since graduation in May of 1964. Sixteen percent of the males had worked a year or less while thirty percent of them had worked more than four years, Table 10. For the female the distribution was a little different, though not greatly, with seven percent of the females having worked none, nineteen percent a year or less, and nineteen percent four years or more.

Since a number of the graduates had had additional schooling and some of the males had been in the service since graduation, it was felt

TABLE 9: Activity at time of interview for Navajo graduates who were interviewed

	Working	Looking for work	Keeping house	Going to school	Other	Total
Males						
Number	28	7	0	2	0	37
Percent	76	19	0	5	0	100
Females						
Number	26	8	7	1	1	43
Percent	61	19	16	2	2	100
Total						
Number	54	15	7	3	1	80
Percent	68	19	9	4	1	100

TABLE 10: Amount of time graduates interviewed spent in active employment since graduation May 1964

	None	1-12 months	13-24 months	25-36 months	37-48 months	More than 48 months	Total
Males							
Number	0	6	7	6	7	11	37
Percent	0	16	19	16	19	30	100
Females							
Number	3	8	6	7	11	8	43
Percent	7	19	14	16	26	19	100
Total							
Number	3	14	13	13	18	19	80
Percent	4	18	16	16	22	24	100

that these ought to be taken into account in terms of how they had progressed since graduation. Thus, a measure of "productive activity" since graduation was calculated. This measure was active employment

plus schooling plus military service. This gave a somewhat different picture, particularly as far as the male graduates were concerned. Only five percent had less than one year of productive activity, while sixty-five percent had had four years or more, Table 11.

TABLE 11: Amount of time graduates interviewed spent in "productive activity" since graduation May 1964

	None	1-12 months	13-24 months	25-36 months	37-48 months	More than 48 months	Total
Males							
Number	0	2	5	4	2	24	37
Percent	0	5	14	11	5	65	100
Females							
Number	2	6	7	4	11	13	43
Percent	5	14	16	9	26	30	100
Total							
Number	2	8	12	8	13	37	80
Percent	2	10	15	10	16	46	100

The number of different jobs held by the Navajo graduates ranged from one to six for the males and zero to six for the females. A preponderance of both males and females had held either one or two jobs, Table 12.

In terms of earnings most of the male graduates were making between two and six hundred dollars a month on their present or most recent job, Table 13. As expected, females were making a little less than the males, with the greatest percent of them earning two to four hundred dollars a month.

A calculation made as to the percentage of jobs held by the graduates who were on the reservation showed for the males that fourteen percent of all their jobs were on the reservation, while fifty-seven percent of all jobs held were off the reservation. For females, the figures were thirty-seven percent on the reservation compared to thirty percent off the reservation, Table 14. It should be noted that off

TABLE 12: Total number of jobs held since graduation in May 1964 by Navajo graduates interviewed

	0	1	2	3	4	5	6	Total
Males								
Number	0	11	11	10	4	0	1	37
Percent	0	30	30	27	11		3	100
Females								
Number	2	16	16	7	1	0	1	43
Percent	5	37	37	16	2	0	2	100
Total								
Number	2	27	27	17	5	0	2	80
Percent	2	34	34	21	6	0	2	100

TABLE 13: Wages for most recent job of Navajo graduates interviewed

	$0-50 per month	51-100 per month	101-200 per month	201-400 per month	401-600 per month	601 or over	N	No information	Total
Males									
Number	0	0	3	16	13	3	35	2	37
Percent	0	0	9	45	37	9	100		
Females									
Number	4	4	4	25	1	0	38	5	43
Percent	11	11	11	66	2	0	100		
Total									
Number	4	4	7	41	14	3	73	7	80
Percent	5	5	10	56	19	4	100		

reservation here includes those graduates working near and far from the reservation.

The occupations of the graduates interviewed were classified into occupational categories and also employer categories. Most of the male

TABLE 14: Job location of all jobs of Navajo graduates interviewed since graduation May 1964

	No jobs	All on reservation	75% on reservation	50-75% reservation	25-50% reservation	Less than 25% on	All off	Total
Males								
Number	0	5	2	3	6	0	21	37
Percent	0	14	5	8	16	0	57	100
Females								
Number	2	16	1	4	7	0	13	43
Percent	5	37	2	9	16	0	30	100
Total								
Number	2	21	3	7	13	0	34	80
Percent	3	26	4	9	16	0	43	100

graduates were employed in the craftsmen, operatives, service workers, or laborers. The female graduates were employed mostly as clerical workers, operatives, private household workers, and service workers. It is noteworthy that none were employed as farmers, managers-officials, or sales workers and only three as professionals, Table 15.

There was a rather wide variety of types of employers, with most graduates being employed in manufacturing, government or tribal agencies, home services or repair services, Table 16.

There is no known comparable data on other Navajos or other Indians with which to compare this sample of Navajos for either occupational categories or for employer categories.

The relationship between occupation category and income was examined for both males and females for the most recent job, Tables 17 and 18. Since the sample was so small no definite conclusions can be drawn, however, among the males craftsmen were getting the highest wages followed by operatives. The most noticeable indication among the females was that the lowest wages were among those working as private household workers as would be expected.

TABLE 15: Occupational categories of most recent job of interviewed Navajo graduates

	- Male -		- Female -		- Total -	
	No.	Per-cent	No.	Per-cent	No.	Per-cent
Not working	0	0	2	5	2	3
Professional, technical, and kindred workers	3	8	0	0	3	4
Farmers and farm managers	0	0	0	0	0	0
Managers, officials, proprietors except farm . .	0	0	0	0	0	0
Clerical and kindred workers, teachers aid	1	3	14	33	15	18
Sales workers	0	0	0	0	0	0
Craftsmen, foremen, kindred workers	8	22	0	0	8	10
Operative and kindred workers	11	30	8	19	19	23
Private household workers . .	0	0	7	16	7	9
Service workers, except household	6	16	12	28	18	22
Farm laborers	2	5	0	0	2	3
Laborers, except farm and mine	6	16	0	0	6	8
TOTAL	37	100	43	100	80	100

TABLE 16: Employer categories for most recent job of interviewed Navajo graduates

	- Male -		- Female -		- Total -	
	No.	Per-cent	No.	Per-cent	No.	Per-cent
No information	4	11	2	5	6	8
Bureau of Indian Affairs . . .	1	3	2	5	3	4
Other government, Federal or State	5	14	4	9	9	11
Construction	3	8	0	0	3	4
Manufacturing	8	22	9	21	17	20
Transportation, communication	2	5	0	0	2	3
Wholesale and retail trade	2	5	1	2	3	4
Business and repair service	7	19	1	2	8	10
Personal services, home services	0	0	11	26	11	14
Professional and related services	0	0	1	2	1	1
Agriculture, forestry, and fisheries	2	5	0	0	2	3
Mining	0	0	0	0	0	0
Entertainment and recreation	0	0	0	0	0	0
Education services	0	0	6	14	6	8
Self-employed	0	0	0	0	0	0
Family	0	0	0	0	0	0
Other government - tribal . .	3	8	5	12	8	10
Finance, insurance and real estate	0	0	1	2	1	1
Total	37	100	43	100	80	100

TABLE 17: Income as related to occupational categories for most recent job of interviewed Navajo male graduate

	$0-50 per month	51-100 per month	101-200 per month	201-400 per month	401-600 per month	601 or over	No information	Total
Not working	0	0	0	0	0	0	0	0
Professional, technical, and kindred workers	0	0	0	1	2	0	0	3
Farmers and farm managers	0	0	0	0	0	0	0	0
Managers, officials, proprietors except farm	0	0	0	0	0	0	0	0
Clerical and kindred workers, teachers aid	0	0	0	0	1	0	0	1
Sales workers	0	0	0	0	0	0	0	0
Craftsmen, foremen, kindred workers	0	0	0	2	3	3	0	8
Operative and kindred workers	0	0	0	6	4	0	1	11
Private household workers	0	0	0	0	0	0	0	0
Service workers except household	0	0	1	4	1	0	0	6
Farm laborers and foremen	0	0	1	1	0	0	0	2
Laborers except farm and mine	0	0	1	2	2	0	1	6
Total	0	0	3	16	13	3	2	37

TABLE 18: Income as related to occupational categories for most recent job of interviewed Navajo female graduate

	$0-50 per month	51-100 per month	101-200 per month	201-400 per month	401-600 per month	601	No information	Total
Not working	0	0	0	0	0	0	2	2
Professional, technical, and kindred workers	0	0	0	0	0	0	0	0
Farmers and farm managers	0	0	0	0	0	0	0	0
Managers, officials, proprietors except farm	0	0	0	0	0	0	0	0
Clerical and kindred workers, teachers aid	0	1	0	10	1	0	2	14
Sales workers	0	0	0	0	0	0	0	0
Craftsmen, foremen, kindred workers	0	0	0	0	0	0	0	0
Operative and kindred workers	0	1	1	6	0	0	0	8
Private household workers	3	2	1	0	0	0	1	7
Service workers except household	1	0	2	9	0	0	0	12
Farm laborers and foremen	0	0	0	0	0	0	0	0
Laborers except farm and mine	0	0	0	0	0	0	0	0
Total	4	4	4	25	1	0	5	43

Correlates of Vocational Success

For this preliminary analysis, two measures of vocational success were used; namely, 1) the amount of time in active employment and 2) the amount of time in active employment plus additional education plus time in military service, which for want of a better name was called "productive activity."

Due to the smallness of the sample, and the fact that those interviewed were not entirely representative of the total graduating class, the results presented here must be considered tentative and suggestive rather than definitive. For much of the data used in the correlations, ordinal rather than interval scales were used. In some cases a dichotomy with a 0-1 scale was used. In examining the simple correlations, an arbitrary division point of .20 was used, with those above a .20 considered to be worthy of note, while those below that were thought to be not very significant. Multiple relationships were examined and are presented after the simple correlations.

It will be noted that there were few correlations that were significantly high on either of the dependent variables for the females. The probable reason for this is that for many of the non-working females there was a measure of productivity which was not included. This was the housewife and mother role of raising a family. It would appear that many of the correlations that are found to be questionable might be due to this factor. Due to the smallness of the sample it was not possible to sort out those who were married for separate analysis.

Data Available from School Records

The simple correlations between the two dependent variables and various scholastic measures are presented in Table 19. Grade point averages were calculated for the total high school years, for each year as well as for various groups of courses; such as English, Social Sciences, etc. None of the grade point averages were significantly related to either active employment or total "productive activity." The two measures presented in Table 19, "total high school grade point average" and "last year in high school grade point average" are indicative of the relationships found for all grade point averages. All were low and most were negative. Likewise, neither the age at which they

started school nor the number of years of schooling was significantly related to either dependent variable. However, it will be noted that whether they received a high school diploma rather than a certificate for the special Navajo program was related, for the males, in terms of total "productive activity". The simple correlation was .349.

TABLE 19: Simple correlations (r) between two measures of vocational success; (1) active employment and (2) productive activity (active employment plus schooling plus military service) and various scholastic measures

	Active Employment		Productive Activity	
	Male	Female	Male	Female
Total high school grade point average	-.142	-.073	-.106	.034
Last year in high school grade point average	-.125	-.023	-.013	.125
Received high school diploma or not	.030	-.173	.349	-.067
Age started school	.017	.026	-.053	-.100
Years of schooling	-.044	.047	.032	.110

Simple correlation between scores from two standardized tests and the two dependent variables were calculated. These tests were the California Achievement Test and the Iowa Test of Educational Development.

For the California Achievement Test correlations were high enough to be indicative of a trend only for the males for "productive activity," Table 20. It will be noted that reading comprehension was the highest with a .385 with only arithmetic fundamentals going below a .20.

The correlations with the Iowa Test of Educational Development, presented in Table 21, reveal a number of relationships which are hard to understand and which will be examined in more detail in future analysis. For the female, why should there be so many inverse or negative corre-

TABLE 20: Simple correlations (r) between two measures of vocational success (1) active employment and (2) productive activity (active employment plus schooling plus military service) and California Achievement Test scores

	Active Employment		Productive Activity	
	Male	Female	Male	Female
Reading vocabulary	-.028	-.017	.281	.065
Reading comprehension	.102	-.118	.385	-.011
Arthmetic reasoning	.033	-.194	.236	-.085
Arithmetic fundamentals	-.048	-.097	.122	.033
Mechanics of English	.031	-.168	.238	-.056
Spelling	-.031	-.032	.275	.074

lations between these measures and time in active employment and "productive activity?" They do not seem to be logically consistent. One possibility for this would be as previously mentioned that we do not have the best measure of productivity for the girls because of the "contamination" of marriage. We did not determine the degree to which they had been seeking employment.

Throughout their schooling at Intermountain, the students were continually being rated on a five-point scale from poor to excellent on various attributes and characteristics. For each individual these ratings were summed up on a five-point scale and an average score was given. The correlation coefficients for each of these ratings with the measures of "employment success" are presented in Table 22. A factor of particular note is that most of the correlations as far as the females are concerned are quite low. Generally for the males the correlations for "productive activity" were higher than "active employment". The highest correlations for both dependent variables were with "leadership" (.433 and .487), "respect for property" (.342 and .518) and "supervision required" (.326 and .430).

Why these correlations are so much higher than correlations with grade point averages and for that matter, most of these with achievement

TABLE 21: Simple correlations (r) between two measures of vocational success (1) active employment and (2) productive activity (active employment plus schooling plus military service) and Iowa Tests of Educational Development

	Active Employment		Productive Activity	
	Male	Female	Male	Female
Background in social studies	-.072	-.297	.223	-.197
Background in natural science	-.064	-.426	.311	-.318
Correctness of expression	-.068	-.293	.094	-.234
Quantitive thinking	-.237	-.296	-.118	-.227
Reading social studies	-.037	-.182	.122	-.067
Reading natural science	-.234	-.073	-.102	-.014
Reading literature	.084	-.377	.183	-.344
General vocabulary	-.031	-.098	.166	.023
Composite	-.107	-.291	.145	-.155

test scores lead to some interesting speculation. One of the questions raised is, do these evaluations include measurable attributes that are important in the broader society, not measurable to tests but observable through association? One might also wonder to what extent these definitions become motivators for individuals in the definition of the self? Taken from an interactionist social-psychological approach this is sometimes termed a self-fulfilling prophesy. In other words, to what extent do the students live up to the image which their supervisors and teachers have of them?

Data Available from the Interview Schedule

In terms of communication, there were two measures which each interviewer was asked to make concerning his evaluation of the interviewee. One was the manner in which he related to the interviewer; that is, was he outspoken, forward, shy or very shy? The other was a measure of his

TABLE 22: Simple correlations (r) between two measures of vocational success (1) active employment and (2) productive activity (active employment plus schooling plus military service) and selected evaluations by teachers and counselors on various attributes

	Active Employment		Productive Activity	
	Male	Female	Male	Female
Honesty	.373	.041	.271	.125
Responsibility	-.034	-.203	-.145	-.109
Courtesy	.336	.017	.274	.109
Punctuality	.288	-.149	.354	-.076
Security	.571	-.146	.462	-.110
Leadership	.433	-.049	.487	.066
Cooperation	.117	-.157	.103	-.029
Respect for property	.342	-.018	.518	.099
Use of English	.027	-.071	-.082	.049
Personal appearance	-.101	.125	-.067	.211
Supervision required	.326	.020	.430	.079
Emotional stability	.190	-.193	.177	-.084
Social attitude	.244	-.098	.295	-.024
Average evaluation	.368	-.101	.358	.012

English, whether it was above average white, average white, below average white, or well below average white. Both of these evaluations yield relatively high correlations, particularly with productive time (.581 and .362), Table 23. Also dress and grooming, as compared to average white, was found to be correlated at .304.

Another measure of an indication of adaption to the broader society was that of participation in formal organizations. It was found that very few of them participated at even a minimal level; however, this participation score did not appear to be significantly related to either "active employment" or "productive activity."

Several indications or measures of traditionalism and adaptation to

TABLE 23: Simple correlations (r) between two measures of vocational success (1) active employment and (2) productive activity (active employment plus schooling plus military service) and indications of cultural adaptation to broader society by graduate

	Active Employment		Productive Activity	
	Male	Female	Male	Female
Manner of relating to interviewer	.348	-.050	.581	.062
English evaluation by interviewer	.169	.084	.362	.190
Dress and grooming evaluation by interviewer	.140	.144	.304	.282
Participation in formal organizations	-.031	.140	.116	.138

the broader society were attempted. In terms of adaptations of the parents, the ownership of certain items was considered to be indicative. For the males it will be noted that parents' ownership of car or truck, radio, and water (that is water available at the homestead) was positively related to time in "active employment" and "productive activity", Table 24; also ownership of a TV appears to be positively related to the amount of time in active employment. (It will be noted that there are zero correlations for the females for both water and telephone. There were no cases where the females' parents had water or telephone, indicating, that the females in the sample tend to be from somewhat more isolated families than do the males.) These relationships appear to indicate that perhaps ownership of these items means somewhat more progressive parents who have come part of the way towards the white man's values system.

Another question asked was, do the parents have "sings" or not. A sing is a traditional ceremony with the medicine man, which is important in terms of overcoming illness. Thus, if the parents have "sings" they would tend to be more traditional. The expected inverse relationship for the females was found here, but a very low correlation for the males was found.

TABLE 24: Simple correlations (r) between two measures of vocational success (1) active employment and (2) productive activity (active employment plus schooling plus military service) and indication of traditionalism

	Active Employment		Productive Activity	
	Male	Female	Male	Female
Ownership by parents of:				
car or truck	.347	.114	.358	.042
radio	.231	-.074	.201	-.009
lights	.096	.159	.195	.119
water	.219	0	.240	0
telephone	.197	0	.112	0
T. V.	.217	-.127	.155	-.178
Do parents have "sings" or not	-.007	-.203	-.176	-.232
Does graduate know the traditional stories	.206	-.114	.274	-.168

The graduates were asked if they knew the traditional Navajo stories. Traditional stories are tied up with the Navajo religious thinking. We hypothesized that knowledge of these would be related to traditionalism and would, therefore, be inversely related to relative vocational success. However, we found that the reverse was true, as far as the male graduate was concerned (.206 and .274).

If this is a real relationsip as it appears to be, then it offers a chance for some interesting speculation. One of the problems among the Navajo has been that in terms of religion he had conflict in many cases between the traditional Navajo way of life and the various forms of Christianity which have been thrust upon him in varying degrees. Over half of the graduates in the sample listed one of the Christian denominations as one of the organizations to which they belonged, but very few of them participated to any degree. It may be that the graduates who know the traditional stories are those who have a more firm value base.

This type of reasoning seems even more plausible when we note from the ratings of the school personnel that security has such a high positive relationship with both time in active employment and total productive time.

The Semantic Differential Scales

The responses to the semantic differential scales were weighted on a five-point scale between the polar words from 1 to 5 from left to right as the words are presented in Table 25. Looking at a case in point, under education, a direct relationship between "hard and soft" and "productive activity" such as we find for the males would indicate that males who answered toward the "soft" side of the question would tend to have spent more time in "productive activity."

None of the correlations as far as education was concerned were high. In terms of the "non-Indian way of life," there was one set "hard--soft" which was significantly correlated with "active employment" and "productive activity" for the female. This is a positive relationship which would indicate that those who thought of the "non-Indian way of life" as "soft" tended to have spent more time in "active employment" and more in "productive activity." The one that is related for the males is the "fast--slow" dichotomy. The inverse relationship for each of the dependent variables indicates that those thinking the "non-Indian way of life" is "fast" tended to have more time in "active employment" and a greater time spent in "productive activity." There is one other significant relationship for the males, and that is "productive activity" related to "poor--rich." Those characterizing the "non-Indian way of life" as "rich" tended to have spent more time in "productive activity." This, if we look at it particularly in conjunction with "life on the reservation," which is significantly related in an inverse way with "poor--rich," would again indicate that they think of the reservation as being relatively "poor" and the broader society as being relatively "rich." It seems quite probable that they are thinking in terms of money here and perhaps, those with more of a dollar or money orientation are those who are working more.

The only significant correlations between the sets of polar words related to "life on the reservation" and the dependent variables were

TABLE 25: Simple correlations (r) between two measures of vocational success (1) active employment and (2) productive activity (active employment plus schooling plus military service) and semantic differential scales

	Active Employment		Productive Activity	
	Male	Female	Male	Female
Education				
Hard--Soft*	-.091	-.049	.020	-.032
Good--Bad	.057	.107	.084	.133
Fast--Slow	-.092	.075	-.156	-.037
Sad--Happy	.032	-.098	-.061	-.077
Non-Indian Way of Life				
Hard--Soft	.019	.230	-.014	.232
Sad--Happy	-.048	.119	.137	.143
Fast--Slow	-.287	-.081	-.461	-.091
Weak--Strong	-.033	.007	.172	-.007
Poor--Rich	.009	-.139	.204	-.187
Life on Reservation				
Good--Bad	.123	.131	.153	.077
Weak--Strong	-.053	-.030	-.053	-.017
Sad--Happy	-.098	-.111	-.148	-.110
Hard--Soft	-.155	.045	-.224	-.027
Fast--Slow	-.072	.121	.295	.059
Poor--Rich	.030	-.109	-.248	-.117

*Items were weighted on a five (5) point scale with one (1) to the left and five (5) to the right as items are listed.

found for the males as related to "productive activity." In addition to them picturing the "life on the reservation" as being "poor" it is also "slow" and it tends to be "hard" in looking at the last three pairs of words, Table 25.

One multiple correlation with a stepwise deletion was computed for the males with thirteen independent variables and using total "produc-

tive activity" as the dependent variable. The smallness of the sample limited the number of variables that could be used and still have relative confidence of the results. The variables chosen included those that appeared most meaningful from the various simple correlations. These variables are listed in Table 26 along with R^2 for each step in the deletion process.

TABLE 26: Stepwise regression summary listing independent variables as they relate to total productive activity and deleting less important variables in succession for Navajo males

Variables	R^2
Parents own truck or car	.6053
Overall grade point average	.6053
Diploma or special Navajo program	.6047
*Supervision required	.6021
Iowa Test of Educational Development composite score	.5978
*Punctuality	.5759
*Emotional stability	.5516
English grade point average	.5291
*Security	.5001
Vocational courses grade point average	.4658
California Achievement Test reading comprehension	.4089
Knowing traditional stories	.3462
*Respect for property	.2601

*Teacher evaluations

The total R^2 was .605 which indicates that 60 percent of the variability in total productive time can be accounted for by the 13 variables. The last variable to drop out was the teacher evaluation of "respect for property" indicating this was the "best" variable for predicting total "productive activity." The next "best" variable (that is the one adding

the greatest additional unique contribution to an explanation of the dependent variable) was knowing of traditional stories by the respondent. These were followed by the "reading comprehension score" on the California Achievement Test and then "grade point average on vocational courses."

Again it should be stressed that these results are only suggestive because of the smallness of the sample, but it appears that among the variables used in the study are those which can be meaningfully combined to give an explanation of and be useful for predicting a reasonable percentage of relative vocational success among Navajo males.

GENERAL CONCLUSIONS AND RECOMMENDATIONS

As a feasibility study, a number of questions were answered. Would it be possible to find these students five years after graduation? The answer to this is an unequivocal yes. It should be practicable, with a reasonable expenditure of time and effort, to locate and interview at least ninety percent of the graduates.

Is it possible to get meaningful information from the students? The answer again is yes, but again it is not easy. One could not expect to get meaningful information by means of a mailed questionnaire. Other techniques, such as the semantic differential, must be modified in order to obtain meaningful information. Information obtainable from the graduates is particularly valuable when it can be used in conjunction with data available from other sources.

The use of an on-reservation, off-reservation dichotomy which had been envisioned at the time of the proposal is not very meaningful due to the extreme mobility of the Navajos. Future studies should probably encompass a longer period after completing school since graduate mobility could then be looked at in a more proper time perspective.

RECOMMENDATIONS

There are two related areas which should be particularly fruitful for more detailed future research on Indians as well as other minority groups, including rural migrants to urban areas. The first of these areas centers around attachment to society. It was rather obvious that for the graduates who were interviewed, any attachment they had with the broader society was tenuous indeed. In what types of meaningful ways do they spend their time when they are not on the job? How can attachment be facilitated? Coupled with this should be some detailed work related to "homesickness." In other words, what are the pulls, as well as the pushes, that are involved in this return to the reservation which is so strongly seen in this study and which may not be unique to this group, except in particulars.

The relationship between the knowing of traditional stories and productive activity would indicate the importance of a strong value system for the psychological security of the individual and an

integration into society which would in turn allow him to be more productive. Some have reasoned that one of the important factors associated with the present rebellion of youth is the lack of a stable value system. The Navajo goes to a school and has other contacts with the broader society beyond the direct influence and control of his parents. His traditions, beliefs, and religion are ridiculed. If he is not secure in his beliefs and values, frustration begins and is undoubtedly heightened when he returns to the reservation where his family and friends will attempt to purge him of the strange ideas he has picked up. Many have said that we should rid the "savages" of all of their silly superstitions and make of them good, 100 percent "Americans." Perhaps a more realistic objective should be to understand their culture and facilitate the modification or change of only those aspects which are too dysfunctional to be compatible with a productive, meaningful existence in the present society. If this could be done, the Navajos and other minority groups could then be bi-cultural; that is, they could be secure in either of the two societies and be able to operate productively in either. Again, such principles, if demonstrated, would be meaningful and operative for many groups beyond the Indians.

Since relatively little relationship was found between traditional indices of success in school (grade point average and achievement test scores), another area where further study might be done would be related to education in a broad society. The question could be asked "What are the critical components of an education which would help to foster the outputs of socially and psychologically secure individuals who are free and able to be productive in the society?"

APPENDIX

Letter sent to parents or guardians

UTAH STATE UNIVERSITY · LOGAN, UTAH 84321

COLLEGE OF SOCIAL SCIENCES

DEPARTMENT OF
SOCIOLOGY,
SOCIAL WORK
AND ANTHROPOLOGY
801-752-8100

Dear

Utah State University and Intermountain Indian School are trying to locate those students who graduated from Intermountain in 1964.
is one of those students and we are very interested in how he has been doing since graduation. It is very important to locate him because his experiences since graduation will greatly help in program planning for future Navajo students.

Could you please complete as many of the following questions as you can and return this sheet as soon as possible in the envelope provided. This is very important and we need your special help.

Gratefully yours,

H. B. Bylund
Professor

His Present Address:

Street _____

City _____

State _____

What kind of work is he doing now? _____

Who is he working for? _____

Address of person he is working for _____
Street

_____
City State

If he is not working please check ☐

If married, to whom _____

COMMENTS: _____

_____

INTERVIEW SCHEDULE

Utah State University
Department of Sociology
Navajo Vocational Study 1969

Interviewer _____ Schedule Number _____

Name _____

1. Address _____

City _____

State _____

2. Neighborhood

Economic Level

_____1. Below average
_____2. Average
_____3. Above average

3. Graduate's House (Type)

_____

Relative to neighbor's economic level?

_____

4. English evaluation

_____1. Outspoken
_____2. Forward
_____3. Shy
_____4. Very shy

_____1. Above average white
_____2. Average white
_____3. Below average white
_____4. Well below average white

5. Dress and grooming evaluation

_____1. Total Navajo or nearly total
_____2. Part Navajo
_____3. None or nearly no Navajo

_____1. Above average white
_____2. Average white
_____3. Below average white
_____4. Far below average white

1. What was your course of study at Intermountain? What were you training for?

2. Have you gone to school since you left Intermountain? Yes_____ No_____

3. Would you please tell us about all of the schools you have attended since you graduated from Intermountain? We would like to know the schools' names, where they are, what type of school each is, and if you completed your program.

	School	Location	Type	Completed? Yes	No
1.					
2.					
3.					
4.					

Any comments about program or school?

We would also like to know what the last year of school was that your (spouse) attended, where it is located, its name, and what type of school it is.

	Last year attended	School	Location	Type
4.				

5. What would you say is the most important thing you learned going to school?

6. When we go to school, we have to take some classes that we feel didn't do us any good. What did you have to take at Intermountain that you feel hasn't done you any good?

Now we would like to know something of your work history:

7. At the present time are you:

_____1. Working
_____2. Looking for work
_____3. Keeping house
_____4. Going to school
_____5. Unable to work (why?)
_____6. Other _____

8. Now we would like to know something about the jobs you have had since graduation from Intermountain. Would you please tell us about each of the jobs you have worked at for more than 60 days starting with your present job(s) and ending with the first job you had after Intermountain.

		What type of work?	Who was the EMPLOYER?	Where was the job LOCATED?	Who TRAINED you for the job?	When did you start and sto the job? FROM	TO
Present Job	1.						
	2.						
	3.						
	4.						
First Job After Inter-mountain	5.						
	6.						
	7.						
	8.						

	Why did you leave?	How many hours?	How many days per week did you work?	What were your Wages?	How did you get the job?
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

9. Does your spouse work? Yes _____ No _____

If YES, fill in same data as on preceding page:

	What type of work?	Who is the EMPLOYER?	Where is the job LOCATED?	Who TRAINED (him) (her) for the job?	When did (he) (she) start and stop the job? FROM	TO
1.						

If he/she holds two jobs, fill #2.

2.					

	How many hours?	How many days per week does (he) (she) work?	What are his/her WAGES?	How did (he) (she) get the job?
1.				
2.				

PROBE

Trouble finding place to live.

Help finding work.

Why did you pick this place to work and live?

IF NOT WORKING:

10. What are the reasons you are not working?

11. Are you looking for work? Yes_____ No _____

12. What type of work are you looking for?

_____1. Full time
_____2. Part time
_____3. Both (either)

_____
Job description if given.

13. If you are not looking for work, what are the reasons you are not looking for work?

14. Now we would like your opinion.
Would you say Navajo's have more difficulty finding work than other people?

Yes _____ No _____

15. Would you say Navajo's have more difficulty keeping work than other people?

Yes _____ No _____

Now we would like to know how you feel about your work.

16. Do you like the work you are doing? Yes_____ No_____

17. What are the good things about (working for your present employer?)
(doing what you're doing now?)

18. What changes would make (working) (things) here better?

19. Have you ever thought about (going back to) (leaving) the reservation?

Yes_____ No_____

Why? Permanently?

ALTERNATE TO 19. If only on reservation for summer or short time,

20. Do you plan to return permanently to the reservation someday?

Yes_____ No_____

Why?

21. What change would make living on the reservation better?

22. Where do your parents want you to work?

(If on or off reservation not mentioned, probe.)
On_____ Why?
Off____ Why?

23. When your children are grown, where would you like them to live?

(If on or off reservation not mentioned, probe.)
On_____ Why?
Off____ Why?

24. What kind of people live in this neighborhood - - Any particular ethnic group?

ALTERNATE TO 24. If on reservation for summer or short time,

25. What kind of people live in the neighborhood you live in most of the year? Any particular ethnic group?

26. Now we would like to know a few things about the type of people you like and have as friends. What type of people are they? Probe.

(If the respondent does not include the following in his statement, probe and answer in this space.)

Ethnic Group

"Are your friends mostly Indians?"

Yes___ No ___

Physical Nearness

"Do most of your friends live in this area?"

Yes_____ No _____

27. Do you have any friends who are not Navajo? Yes_____ No_____

Who? (Determine ethnic group.)

28. How often do they visit you? How often do you visit them?

_____1. Several times a week
_____2. Once a week
_____3. Several times a month
_____4. Once a month
_____5. Once every two months
_____6. Once every six months
_____7. Once a year
_____8. Less than once a year

29. Will you please tell us about all the groups and organizations you belong to. (Groups like hobby clubs, unions, churches.) (Determine the proportion of meetings attended in the past year and whether they worked on a committee and/or have been an officer in the past two years. Do this for each organization listed.) (If church is mentioned, get denomination.)

Name of organizations to which YOU belong:	Proportion of meetings attended in past 1 yr.	Have you worked on a committee in past 2 yrs.?	Have you been an officer in past 2 yrs.?
	(check one)	(check one)	(check one)
	0 1/4 1/2 3/4 or more	Yes No	Yes No

30. All of us have problems sometimes, and talking with someone seems to help. If you have a personal problem, who do you talk to about it?

31. Are there things in the Navajo way of life that are changing?
Probe.

32. Are there any things about the Navajo way of life that should not change?
Probe.

33. What things of Navajo life should be changed?

34. Do you own or have a:

_____1. Truck or car
_____2. Radio
_____3. Lights
_____4. Running water
_____5. Phone
_____6. T.V.

35. How often do you go home for a visit?

36. Where is home? (Trading post area.)

Now we would like to know a little something about your parents and where you come from.

I. Would you say that your parents live the old traditional Navajo life or are they more modern?

A. Economic way of life

Type of work
Type of house
If traditional, have they ever worked for wages?
On welfare?

Do they own or have a:

_____1. Truck or car
_____2. Radio
_____3. Lights
_____4. Running water
_____5. Phone
_____6. T.V.

B. Religious aspects

1. Medicine man

2. Sings

3. Traditional stories--Do you know any of them?

What did you do as a child during vacation time when you were in elementary school?

How many brothers and sisters do you have?

Do they go to school?

Yes_____ No_____

C. Education

Do your parents speak or understand English

_____1. Speak
_____2. Understand

How do your parents feel about education?

37. Age _____ 38. Sex _____ 39. Marital Status S M D Sep Wid

If married, 40. To whom _____ 41. From _____
City State

42. Married at _____
City State

43. How married _____

44. When married _____

Spouse is 45. Full Navajo _____
Other Indian _____
Part Indian _____
Non-Indian _____

46. How many children do you have? _____

47. Are there any members of your family who have married persons who are not Navajo? Yes _____ No _____

MEN ONLY

48. Did you serve in the military? Yes _____ No _____

From	To	Branch	Rank	Drafted?

49. How do you feel about your time in the service?

50. How would you describe your education?

HARD	____	____	____	____	____	SOFT
GOOD	____	____	____	____	____	BAD
FAST	____	____	____	____	____	SLOW
SAD	____	____	____	____	____	HAPPY

51. How would you describe your present (Job?) (Life?)

WEAK	____	____	____	____	____	STRONG
GOOD	____	____	____	____	____	BAD
HARD	____	____	____	____	____	SOFT
SAD	____	____	____	____	____	HAPPY

52. How do you feel about the non-Indian way of life?

HARD	____	____	____	____	____	SOFT
SAD	____	____	____	____	____	HAPPY
FAST	____	____	____	____	____	SLOW
WEAK	____	____	____	____	____	STRONG
POOR	____	____	____	____	____	RICH

53. How would you describe living on the reservation?

GOOD	_____	_____	_____	_____	_____	BAD
WEAK	_____	_____	_____	_____	_____	STRONG
SAD	_____	_____	_____	_____	_____	HAPPY
HARD	_____	_____	_____	_____	_____	SOFT
FAST	_____	_____	_____	_____	_____	SLOW
POOR	_____	_____	_____	_____	_____	RICH